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REMARKS

In the Office Action, the Examiner noted Applicant's election in response to the last Office Action and indicated that claims 1-6, 9-14, 16, 28-45, and 58-61 are drawn to the elected invention, while claims 7, 8, 15, 17-27, and 46-57 are withdrawn. The Examiner did not agree with Applicant that all the claims are generic, however, the Examiner did not identify any generic claims. Applicant respectfully submits that at least independent claims 1, 31, and 61 are generic claims.

Also in the Office Action, the Examiner indicated that claims 38-45 and 58-60 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicant wishes to thank the Examiner for this indication of allowable subject matter. By this Amendment, Applicant has amended claims 38 and 58 by rewriting these claims in independent form. Accordingly, claims 38 and 58-60 are now in condition for allowance.

Also in the Office Action, the Examiner rejected claims 1-6, 9-14, 16-30, 61 under 35 U.S.C. § 112, first paragraph, and rejected claims 31-37 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,546,049 issued to Kostich. Applicant respectfully traverses the rejections for the reasons stated below.

By this Amendment, Applicant has canceled claims 11 and 42 without prejudice, amended claims 1-4, 6-9, 13-16, 19, 22, 23, 31-33, 36-39, 41, 43-45, 50, 58, and 61 to more clearly define the present invention, and has added new claim 62. Accordingly, claims 1-10, 12-41, and 43-62 remain pending.

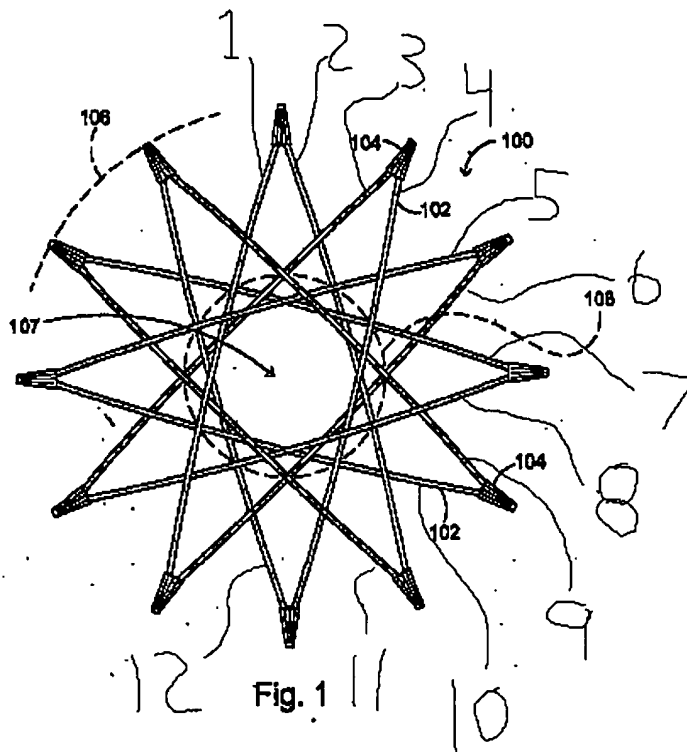
Applicant respectfully traverses the rejection of claims 1-6, 9-14, 16-30, and 61 under 35 U.S.C. § 112, first paragraph. In the Office Action the Examiner contends that the claimed subject matter does not describe in such a way as to enable one skilled in the art insofar as the Examiner contends that it is unclear from the description what is intended to constitute a "spoke" of the invention. Applicant respectfully submits that the term "spoke" is adequately supported in the description as set forth in the comments below. Nevertheless, Applicant has amended some of these claims by changing "spoke" to "elongated member," which was

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presented in independent claim 31 but did not draw an objection. It is also noted that the Examiner did not object to original claims 7, 37, 39, 40, 42, 44, and 45, which recite the word "spoke." Thus, Applicant assumes original claims 7, 37, 39, 40, 42, 44, and 45 are enabled. With respect to rejected claims 1-6, 9-14, 16-30, and 61, the word "spoke" has been removed from all of these claims except for claims 9, 10, and 12, which have been amended so as to depend upon enabled claim 7. Accordingly, Applicants submits that, by these amendments, the rejection of claims 1-6, 9-14, 16-30, and 61 has been rendered moot. Nevertheless, insofar as the word "spoke" does still appear in some of the pending claims, Applicant respectfully submits that the word "spoke" is supported by the description as described below. Further, to the extend the Examiner objects to the description of "the arc count per chord," Applicant has provided a discussion of the support for this term.

First and foremost, Applicant wishes to remind the Examiner that Applicant may be his own lexicographer. It thus becomes necessary to refer to the written description where the exact definition is to be found. Specifically, paragraph [0083] states: "The spokes of a radial-hinge mechanism are given their common name to best represent their posture in a circle and their resemblance to spokes on a common wheel. Alternatively, the word spokes could be replaced with struts, arms, legs, rods, sticks, spars, tubes, links, beams, poles, levers, members, etc." Figs. 12a-12b do isolate the embodiment of a single "spoke" 102 as employed in Figs. 1-3 (see paragraph [0094]) Further throughout the "BRIEF DESCRIPTION OF THE DRAWINGS" references are made to the drawings and the number of spokes included therein.

In the Office Action, the Examiner contends that the description of Fig. 1 as being a 12-spoke embodiment is misdescriptive insofar as the embodiment shows 24 spokes. However, Applicant suspects that either the Examiner considers a spoke to be half of a member 102 or else has counted each spoke twice because there are clearly only twelve spokes shown in Fig. 1 per the definition of spoke provided in the application (see the marked of version of Fig. 1 below, which identifies only 12 spokes). Applicant intends a "spoke" to be the entire member that extends between connectors.



In addition, because of the unique nature of this device called a "Radial-hinge Mechanism", its crossmembers are indeed to be given their unique title of "spokes", and not dissimilar to how the rungs on a ladder may also be called "spokes" and unique to that framework as well, even though a ladder has no resemblance to a wheel.

Finally, and in reference to "Radial-hinge Mechanisms" composed from a single elongated member, "spokes" take on yet another exclusive connotation according to the specification in paragraph [0093]: "As shown in Figs. 15 and 16, radial-hinge mechanisms 1500 and 1600, respectively, are both examples of radial-hinge mechanisms each comprised of only one elongated member formed into the radial-hinge design, with a plurality of spoke-links apparent. To keep nomenclature consistent, these spoke-links will also be referred to as spokes. Hence, the radial-hinge mechanisms 1500 and 1600 are both comprised of a plurality of spokes 1502 and 1602, respectively."

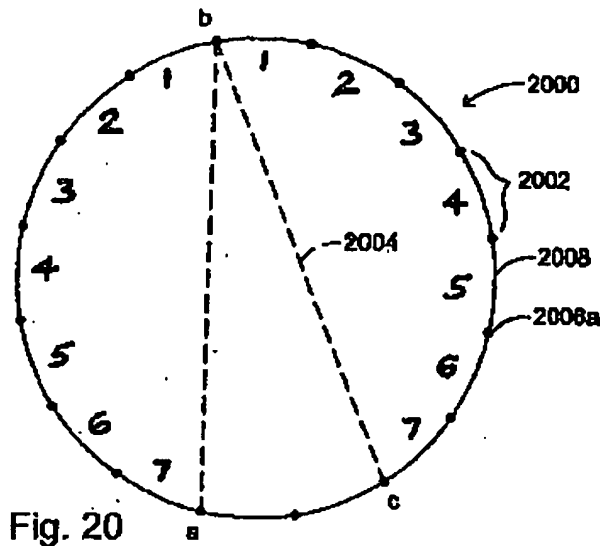
The "arcs per chord" designation first comes to light in the specification in identifying different versions of the radial-hinge mechanism in the "BRIEF DESCRIPTION OF THE

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DRAWINGS". The definition for "arcs per chord" does not appear until page 6 of the application in the "Design and Construction of a Radial-hinge Mechanism" and where its significance is pertinent in establishing the parameters for building any and all versions of the radial-hinge mechanism. Notably, the definition begins to unfold in paragraph [0110]: "The current invention can be thought of as a three-dimensional mechanism composed directly off the pattern of its embodiment in two-dimensional space. The first act in designing the radial-hinge mechanism is the choosing of its spoke-count and arc-count per chord. These two parameters are cross-referenced in the chart of Fig.17, which identifies the existence of twenty-six different versions of radial-hinge mechanisms.... For the following discussion, a sixteen-spoke radial-hinge mechanism with seven arcs per chord has been chosen with its position emphasized on the chart of Fig.17."

The building of a 16-spoke radial-hinge mechanism based on its specific parameter of seven arcs per chord begins with paragraph [0113]. Terminology from basic geometry is employed. From geometry come the terms "arc" and "chord", and both relate to the "circle". An "arc" is a segment of the circumference of a circle. A "chord" is a line segment drawn from one "point" (or "delineation") on the circle's circumference to another "point" on the same circle's circumference. For any particular radial-hinge mechanism, the first step in its design is to draw a circle, then evenly divide that circle's circumference into the same number of "arcs" as the number of spokes the desired radial-hinge mechanism will be composed of in its finished form. Fig. 20 illustrates this circle-division, breaking its circumference into sixteen equal arcs by sixteen delineations for the construction of a 16-spoke radial-hinge mechanism. Thence, as noted in paragraph [0113]: "Sixteen chords 2004 are then drawn between the delineations 2006a on the circumference of the circle 2008 and, in this case, to design a sixteen-spoke radial-hinge mechanism with each chord bridging seven successive arcs on the circumference." From a casual inspection of this Fig. 20, it is perfectly clear that these two chords AB and BC each bridge seven arcs 2002 on the circumference and, subsequently, this parameter of seven arcs per chord is established. In Fig. 21, every chord subscribes to this design parameter of seven arcs/chord, concluding that any and all versions of a radial-hinge mechanism can be identified by these parameters of "spoke count" and "arc-count per chord",

and yielding the chart in Fig.17. See the figure below, which illustrates what is meant by arc counts per chord.



Applicant respectfully traverses the rejection of claims 31-37 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,546,049 issued to Kostich. In the Office Action the Examiner refers to Figs. 1-3 in the description thereof in Kostich. Applicant submits, however, that Kostich fails to teach or suggest each and every feature of independent claim 31. First, the device of Kostich does not constitute a “radial-hinge mechanism” as used and described in the application. Applicant was well aware of Kostich at the time of filing and in fact referred to the Kostich patent in a background of the invention in paragraphs [0003] and [0005]. As pointed out in [0005], the structure disclosed in Kostich is not capable of radial-hinge movement nor do the completed forms result in unitized continuous-loop frameworks that evenly distribute loads, transfer forces, and assist or resist in the various spring-action potentials.

To aid the Examiner in his understanding of the present invention and of the device disclosed in Kostich, Applicant has submitted with this response three examples of the radial-hinge mechanism of the present invention, as well as a sample of the device shown in Figs. 1-3 of Kostich. As apparent from the Kostich device, each end point is connected only to an opposed end point. Thus, in addition to not constituting a radial-hinge mechanism, the Kostich

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device does not have at least 8 cross-members emanating from an inner-aperture on both sides of the mechanism in a "sequentially overlapping" spiral fashion, nor does it include one or more inner connections inner connecting the one or more elongated members into a "continuous loop monolithic structure." Accordingly, Applicant respectfully submits that Kostich fails to teach or suggest each and every element of independent claim 31. Insofar claims 32-37 depend from independent claim 31, theses claims are allowable for at least those reasons stated above with respect to claim 31.

In view of the foregoing amendments and remarks, Applicant submits that the present invention, as defined by the pending claims, is allowable over the prior art of record. The Examiner's reconsideration and timely allowance of the claims is requested. A Notice of Allowance is therefore respectfully solicited.

Respectfully submitted,

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